Distance Education in Asia and the Pacific:

INDIA

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THE NATIONAL CONTEXT FOR DISTANCE EDUCATION

India is one of the oldest civilizations of the world. It covers an area of 329 million hectares extending from the snow-covered Himalayan ranges to the tropical rain forests of the South. According to the 1991 census, the total population of India is estimated at 844 million, accounting for about sixteen percent of the population of the world. In terms of land area, India accounts for 2.4% of the total land area of the world. Between 1981 and 1991, the population of India grew by 161 million and the compound annual growth rate of population was 2.11%.

India, a union of states, is a Sovereign Socialist Secular Democratic Republic with a Parliamentary form of government. India comprises twenty-five states and seven Union Territories. The states are: Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal. The Union Territories are: Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Delhi, Lakshadweep and Pondicherry.

India is a developing economy with a per capita income of $340 in 1988. Its share in the world GNP is one percent, though its population accounts for about sixteen percent of the world population. The occupational pattern of India is typically that of an under-developed economy with about sixty-nine percent of its labour force engaged in the primary sector (agriculture, livestock, forestry, fishing, plantations), thirteen percent engaged in the secondary sector (mining, manufacturing and construction) and about eighteen percent in the service sector (trade, commerce, transport and communications, personal and community services).

At the time India achieved independence in 1947, only 18.3% of the population was literate. By 1981, the literacy rate improved to 43.4%. It was 56.4% among males and 29.8% among females. With reference to the population aged seven years and above, the 1991 census revealed that the literacy rate had improved to fifty-two percent (about sixty-four percent of males and thirty-nine percent for females).

The Directive Principles of the Constitution enjoined upon the Government was to provide free and compulsory education to all children up to the age of fourteen by 1960. Even after three decades, the fulfillment of the Constitutional Directive does not appear to be a feasible goal in the near future. Although India has achieved a gross enrollment level of 97.9% in 1987-88, because of the high drop-out rates, the number of children who complete elementary education continues to be small. Studies have shown that out of one hundred students admitted in Class I, only forty reached Class V and twenty-three went on to Class VII. Moreover the retention rates among the females were even poorer and only sixteen to eighteen percent of females enrolled in Class I reached Class VII. The drop-out rates among the scheduled castes, scheduled tribes, landless labourers, marginal farmers, and self-employed poor artisans are also high.

The gigantic nature of the Indian educational system can be seen in the fact that in 1987-88 it served 144.5 million students at various stages and provided employment to 4.11 million teachers. Contrast this with the situation prevailing in 1950-51 soon after the country became independent, when there were a total of 23.9 million students in the educational system and 1.52 million teachers.

The national government has undertaken the development and expansion of education as one of its primary functions. The pyramid of our system is indicated by enrollment figures. As compared with 93 million students in Classes I-V in 1987-88, the number of enrolled in Classes VI-VIII falls to about thirty million and in Classes IX - XII further declines to about eighteen million. Only about four million students are enrolled at the University/College level. At various terminal points, sharp declines in enrollment may be due to drop-out rates, students forced by economic factors to take up employment, and parents being unable to pay the cost of education as students move up the ladder.

TABLE 1: Achievements at Different Levels of Education in India

	1950-51	1960-61	1979-80	1987-88
1. No. of pupils in Class I-V (millions)	19.2	35.0	71.6	92.9
2. Percentage of total population in age group 6-11	(42.6)	(62.4)	(82.7)	(97.9)
3. No. of pupils in Class VI-VIII (millions)	3.1	6.7	19.3	29.9
4. Percentage of total population in age group 11-14	(12.7)	(22.5)	(39.6)	(55.1)
5. No. of pupils in classes IX-XI/XII (million)	1.2	2.9	9.8	17.9
6. Percentage to total population in age group 14-17	(5.3)	(10.6)	(21.9)	n.a.
7. No. of pupils at the University stage (arts, science & commerce) (million)	0.36	0.89	3.14	3.81***
8. Percentage of total population in age group 17-23	(0.8)	(1.8)	n.a.	n.a.
9. Percentage of students reading science at University stage	37.8	28.9	23.0	23.5
10. No. of primary/Junior basic schools	209,671	330,399	482,476	543,677

TABLE 1: Achievements at Different Levels of Education in India *(continued)*

	1950-51	1960-61	1979-80	1987-88
11. No. of middle/senior basic schools	13,590	49,663	115,117	141,014
12. No. of high/higher secondary schools	7,288	17,257	48,905	71,305**
13. No. of teacher training colleges	53	478	1,283	485
14. No. of arts, science and commerce colleges	542	1,122	6,514	6,647***
15. No. of Universities	27	45	128	176*
16. No. of teachers in primary schools	537,918	741,515	1,328,700	1,616,685
17. Percentage of trained teachers in primary schools	(58.8)	(64.1)	(86.8)	(88.4)
18. No. of teachers in middle schools	85,496	345,228	835,608	1,014,162
19. Percentage of trained teachers in middle schools	(53.3)	(66.5)	(88.7)	(90.1)
20. No. of teachers in high/ higher secondary schools	126,504	296,305	869,842	1,242,823
21. No. of teachers in University, arts, science & commerce Colleges	18,648	41,759	259,745	243,781*

Source:a) Compiled from Government of India, India 1990, pp. 79-80.
b) University Grants Commission, Annual Report for the year 1988-89.

*Includes deemed to be universities and institutions of national importance.
**Includes data of Intermediate/Pre-degree/Junior Colleges/1+2 higher secondary and high/higher secondary.
***Figures have been taken from UGC, Annual Report for the year 1988-89.

However, the demand for higher education has led to a very fast growth of enrollment in Universities and colleges. While enrollment in higher education was just 0.36 million in 1950-51, it more than doubled during the first decade and was 0.89 million in 1960-61. In the subsequent twenty-seven years, it improved to 3.81 million by the year 1987-88, a fourfold increase. This was largely due to the fact that in the pre-independence period, very

slow and rather tardy development of the educational system took place. To increase the educated manpower with a higher degree of skills and qualifications, the educational system was expanded.

To complement the formal system, the Central Board of Secondary Education, New Delhi set up an Open School in 1979. It was to provide an alternative channel for education and opportunity for school drop-outs, housewives, unemployed or working adults and in general to those who intended to avail of continuing education. From a small enrollment of 1,672 students in 1981-82, the number of students increased to 51,000 in 1989. Every state now has open-school students.

Since the formal system was unable to meet the rising demand for higher education, correspondence courses/distance education was developed as an alternative mode at the University stage. From a modest beginning in 1962 when a pilot project was taken up at Delhi University, the distance education system at the University level catered to a half-million students in 1990-91.

Education is an integral part of the country's development process. Continuous and concerted efforts during the last four decades have resulted in a fourfold increase in the total number of literate. The number of schools went up from 230,000 in 1950-51 to 756,000 in 1987-88 -- more than a three-fold increase. The number of universities also increased from twenty-seven in 1950-51 to 176 in 1987-88. With quantitative expansion of educational facilities, now the emphasis is shifting to qualitative improvement. The emphasis is also shifting from expanding the formal system to developing open learning/ distance education.

The first clear statement on distance education/correspondence courses was made in the Report of the Education Commission (1964-66) when it mentioned:

> There must also be a method of taking education to the millions who depend upon their own effort to study whenever they can find time to do so. We consider that correspondence or home-study courses provide the right answer for these situations.
>
> The correspondence or home-study course is a well tried and tested technique. Experience of correspondence courses in other countries of the world, such as the USA, Sweden, the USSR, Japan and Australia, where they have been used extensively for a long time, as well as the limited and brief experience at the University of Delhi, encourage us to recommend fuller exploitation of the method for a wide range of purposes. There is hardly any ground for the apprehension that correspondence courses are an inferior form of education than what is given in regular schools and colleges. Experience abroad and experiments in India have shown results which, on balance, tend to strengthen the case for correspondence education.

The Education Commission further stated:

> It is obvious that these universities should not be the only agencies which should organize correspondence courses. Provision of correspondence courses should also be one important function of the extension service of developmental departments of government such as agriculture, industries, cooperation, health. This should prove to be a valuable method of conveying to the educated and the neo-literate alike such knowledge and improved techniques as the departments concerned wish to put across.

The recommendation of the Education Commission was incorporated in the National Policy of Education (1986) in the following statement:

> ...(13)Part-time Education and Correspondence Courses: Part-time education and correspondence courses should be developed on a large scale at the university stage. Such facilities should also be developed for secondary school students, for teachers and for agricultural, industrial and other workers. Education through part-time and correspondence courses should be given the same status as full-time education. Such facilities will smooth transition from school to work, promote the cause of education and provide opportunities to the large number of people who have the desire to educate themselves further but cannot do so on a full-time basis.

The objectives of distance education/correspondence education were enunciated in the guidelines issued by the University Grants Commission in 1974.

> The objective of correspondence education is to provide an alternative method of education to enable a large number of persons with necessary aptitude to acquire further knowledge and improve their professional competence. Correspondence Courses are thus intended to cater for (a) Students who had to discontinue their formal education owing to pecuniary and other circumstances; (b) Students in geographically remote areas; (c) Students who had to discontinue education because of lack of aptitude and motivation but who may later on become motivated; (d) Students who cannot find a seat or do not wish to join a regular college or university department although they have the necessary qualifications to pursue higher education; and (e) individuals who look upon education as a life-time activity and may either like to refresh their knowledge in an existing discipline or to acquire knowledge in a new area.

The New Education Policy (1986), while asserting the role of education as a vehicle of human resource development, laid particular emphasis on distance education and open learning system. The New Education Policy (1986) stated:

> Para 3.11 Lifelong education is a cherished goal of the educational process. This presupposes universal literacy. Opportunities will be provided to the youth, housewives, agricultural and industrial workers, and professionals to continue the education of their choice at the pace suited to them. The future thrust will be in the direction of open and distance learning.
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> Para 4.13 A vast program of adult and continuing education will be implemented through various ways and channels, including ... (g) programs of distance learning.
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> Para 5.35 The Open University system has been initiated in order to augment opportunities for higher education and as an instrument of democratizing education.
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> Para 5.36 The Indira Gandhi Open University established in 1985 in fulfillment of these objectives will be strengthened.
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> Para 5.37 This powerful instrument will have to be developed with care and extended with caution.
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> Para 6.6 In view of the present rigid entry requirement to formal courses restricting the access of a large segment of people to technical and managerial education, programs through a distance-learning process, including use of the mass media, will be offered. Technical and management education programs, including education in polytechnics, will also be a flexible modular pattern based on credits with provision for multipoint entry. A strong guidance and counselling service will be provided.
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> Para 8.10 Modern communication technologies have the potential to bypass several stages and sequences in the process of development encountered in earlier decades. Both the constraints of time and distance at once become manageable. In order to avoid structural dualism, modern educational technology must reach out to the most distant areas and the most deprived sections of beneficiaries simultaneously with the areas of comparative affluence and ready availability.

HISTORY AND BACKGROUND OF DISTANCE EDUCATION IN INDIA

Unlike the U.K., where the British Open University was established as a full-fledged

independent institution to cater to the needs of distance education, in India correspondence courses were initially conceived as a sub-system in the conventional university set up. To establish their credibility the correspondence courses institutes/directorates adopted the same syllabi as the conventional universities. A pilot correspondence education project was introduced in Delhi University in 1962. The success of this experiment encouraged other universities to take up instruction by correspondence at various levels. In 1989, India had five Open Universities and thirty-five directorates/institutes attached to the conventional universities imparting instruction through distance education technique.

TABLE 2: Distribution of Enrollment of Distance Education Students Between Open Universities and Directorates Attached with Conventional Universities in India

	1988-89	1989-90
1. Andhra Pradesh Open University	37,435	34,644
2. Indira Gandhi National Open Univ.	21,986	31,663
3. Kota Open University	18,327	14,131
4. Yashwant Rao Chavan Open University	---	7,977
I Total for Open Universities	77,748 (17.1)	88,415 (16.5)
II Total enrollment in DE in conventional Universities	376,496 (82.9)	447,097 (83.5)
III Total Enrollment in DE	454,243 (100.0)	535,512 (100.0)

Source: University Grants Commission, Annual Report 1988-89, and the data compiled by UGC Office.

Data given in Table 2 reveal that distance education is mainly imparted by the Directorates/Institutes attached with conventional universities. In 1989-90, out of a total enrollment of 535,000 in distance education, the Open Universities accounted for just 88,000 and the directorates/ institutes with conventional universities accounted for 447,000. In relative terms, Open Universities catered to 16.5% of the total enrollment in distance education while conventional universities accounted for 83.5%. However, these proportions are likely to change as the Open University Network matures.

The history of the growth of distance education in India has passed through a Pre Take-off stage, a Take-off stage, and a Drive Towards Maturity. The Pre-Take-off Stage during the decade 1962-70 saw the establishment of distance education institutions. This is also referred to as the germination stage. During this period, only four institutes were established, Delhi (1962), Punjabi University, Patiala (1968), Meerut (1969), and Mysore (1969). The 1960's were, therefore, a period during which the idea of distance education took birth and was in the process of establishing its roots in India. The movement of distance education had started, and was slowly and gradually gathering momentum so that it could enter the Take-off stage.

The Take-off Stage occurred during the decade 1970-80, when nineteen universities established Institutes/Directorates of Correspondence Education and this provided a major thrust to distance education. In addition, a number of institutes started post-graduate courses and some diploma/certificate courses. The new units of distance education established were Punjab and Himachal Pradesh (1971), Andhra and Sri Venkateswara (1972), CIEFL Hyderabad (1973), Patna (1974), Bhopal (Madhya Pradesh), Utkal (Orissa) and Bombay (Maharashtra) (1975), Madurai-Kamraj, Jammu, Srinagar and Rajasthan (1976), Osmania and Kerala (1977), Allahabad and SNDT Women (Bombay) (1978), Annamalai and Udaipur (1979). Distance education got a big push during the 1970's. More and more universities accepted distance education as an alternative technique of education and it was during this time that Institutes/Directorates of Correspondence/Distance Education started post-graduate and diploma/certificate courses, in addition to undergraduate courses. Most of these courses were a mere replica of the BA/BCom, MA/MCom., BSc. courses of the universities. In this sense, this phase may be described as an expansion phase of distance education within the framework of the usual university structure.

The Drive Towards Maturity began in the early 1980's. Until the end of the 1970's, distance education was a sub-system of the university system. There was an asymmetry in the process of decision-making. While teachers in the distance education Institutes were expected to operate the system, their role in decision-making was minimal. The University Dons and Heads of Departments decided the policies and distance education institutions did not have any functional autonomy. As a result, there was a strong demand made in several quarters to establish an Open University which should coordinate the work of all directorates in the country. It was also felt that an apex institution of this nature solely devoted to the development of distance education would be useful in strengthening the system. The Government of Andhra Pradesh made the momentous decision to establish Andhra Pradesh Open University in 1982. Thus, an autonomous institution of the level of a University was set up to develop distance education.

In September 1985, the Government of India decided to set up the Indira Gandhi National Open University. Among the objectives of the University, the following were the main focal points:

> It shall be the duty of the University to take all such steps as it may deem fit for the promotion of open university and distance education systems and for the determination of standards of teaching, evaluation and research in such systems, and for the purpose of performing this function, the University shall have such powers, including the power to allocate and disburse grants to colleges, whether admitted to its privileges or not, or to any other university or institution of higher learning, as may be specified by the students.

After the establishment of Indira Gandhi National Open University, two more Open Universities were established: Kota Open University (1987), and Yashwant Rao Chavan Maharashtra Open University (1989). These four Open Universities were able to make good progress during the next six to seven years. Nalanda Open University (Bihar) though formally established in 1987, is yet to make a serious beginning in taking up distance education programmes. During the period 1980-91, the country witnessed the simultaneous growth of two streams in distance education, the Open University system comprising five open universities, and thirty-five distance education directorates attached to conventional universities.

There is no pattern in the organisation, quality-control and funding of Distance Education institutions in the country. Indira Gandhi National Open University (IGNOU) is funded by the Ministry of Human Resource Development and has no connection with the University Grants Commission (UGC). State Open Universities receive funds from the State Government and the UGC. Recently, some grant money has also been given by IGNOU to some state open universities. The Distance Education Directorates/Institutes working with conventional universities receive grants from UGC. Some directorates are working as surplus generating institutions in the country and thus, they do not depend on UGC grants. IGNOU has not been able to establish norms for the functioning of distance education institutions and thus quality-control in the present structure of distance education is conspicuous by its absence. At the Conference of the Vice-Chancellors held at Ahmedabad in October, 1990, it was decided to establish a joint body consisting of representatives of UGC, IGNOU and distance education Institutes/Directorates so as to coordinate the functioning of distance education institutions including Open Universities with a view to determine standards of teaching, evaluation and research in distance education. So far, this resolution has the status of pious sentiment and no concrete efforts have been made in this direction.

The two wings of distance education coexist with their advantages and limitations. The Open University System has much greater freedom to innovate courses, experiment with flexible designs and evolve its own system of examination. The biggest advantage of the system is its exclusive devotion to the development of distance education. On the other hand, the distance education directorates attached with conventional universities use the same syllabi and carry with them the stamp of well-established universities and thus are more acceptable to the public. Students studying in these directorates enjoy the benefit of transferability from the distance education to the conventional system and vice versa. The pattern of the syllabi of the Open University system does not provide the student this advantage of transferability. As a consequence, distance education directorates with the conventional system continue to attract students. The open university system has not been able to wean away students from the distance education Directorates. Both systems coexist and are likely to continue as such, given the complex structure of the Indian polity.

Despite the problems of structure, a rapid and more diversified pattern of distance education has developed during the 1980's. Besides the traditional courses like BA, BCom, MA, MCom, BEd, MEd, LLB/BGL, which were being offered by different distance education Institutions, a number of non-conventional diploma/certificate courses have been undertaken. Moreover, it is heartening to note that several universities offer a Science Course at the highest level viz., MSc in Chemistry, Physics and Zoology and MA/MSc course in Mathematics. Annamalai University has made the bold experiment of introducing job-oriented diploma courses in Concrete Technology and Design of Concrete Structure, Chemical Process, Instrumentation and Control, Automobile Technology and Computer Programming. Another bold experiment has been initiated in Panjabi University (Patiala) by the introduction of M.Phil course in English and Panjabi. Similarly, Madras University has introduced a PhD in English, History and Mathematics. All these developments indicate that distance education is breaking new grounds and thus the diversification introduced in distance education is an index of its drive towards maturity.

Table 3 provides information about the rate of growth in enrollment in the formal university system (consisting of University Departments and Colleges) and the distance education system. Between 1975-76 and 1982-83, enrollment in the formal university system

increased from 2.43 million to 3.13 million indicating an increase of 29.1% during the seven-year period, whereas enrollment in distance education rose from 64,000 to 197,000 indicating an increase of 207.6% during the same period. The compound annual growth of enrollment was 3.7% for the formal system, but it was of the order of 17.4% in the distance education system. It may be argued that this sharp increase in distance education enrollment may be due to a very low base in distance education. But the same story is repeated in the subsequent period of 1982-1983 and 1989-1990.

TABLE 3: Total Enrollment In Higher Education In India

	University Departments & Colleges	Distance Education (Universities & Institutions)	Total Enrollment
1975-76	2,426,109 (97.4)	64,210 (2.6)	2,490,319 (100.0)
1976-77	2,431,563 (96.8)	79,718 (3.2)	2,511,281 (100.0)
1977-78	2,564,972 (95.6)	119,163 (4.4)	2,684,135 (100.0)
1978-79	2,618,228 (95.1)	133,459 (4.9)	2,751,687 (100.0)
1979-80	2,648,579 (95.1)	136,699 (4.9)	2,785,278 (100.0)
1980-81	2,752,437 (94.3)	166,428 (5.7)	2,918,865 (100.0)
1981-82	2,952,066 (93.8)	193,691 (6.2)	3,145,757 (100.0)
1982-83	3,133,093 (94.1)	197,555 (5.9)	3,330,648 (100.0)
1983-84	3,307,897	n.a.	n.a.
1984-85	3,404,096	n.a.	n.a.
1985-86	3,570,897 (91.0)	355,090 (9.0)	3,925,987 (100.0)
1986-87	3,681,870 (91.1)	357,791 (8.9)	4,039,661 (100.0)
1987-88	3,814,417 (89.4)	402,720 (10.6)	4,217,137 (100.0)
1988-89	3,947,922 (89.7)	454,243 (10.3)	4,402,165 (100.0)
1989-90	4,246,878 (88.8)	535,512 (11.2)	4,782,390 (100.0)
ANNUAL GROWTH RATE OF ENROLLMENT			
1975-76 TO 1982-83	3.7	17.4	4.2
1982-83 TO 1989-90	4.4	15.3	5.3

Enrollment in the formal university system rose from 3.13 million in 1982-83 to 4.24 million in 1989-90 -- an increase of 35.5% during the seven-year period, but against this, enrollment in distance education jumped from 197,000 to 535,000 during this period -- an increase of 171%. The compound annual growth of enrollment during 1982-83 and 1989-90 in the formal system was of the order of 4.4%, and the growth rate of enrollment in the distance education system was 15.3% per annum. Consequently, the share of distance education in total enrollment in higher education improved from 2.6% in 1975-76 to 5.9% in 1982-83 and further to 11.2% in 1989-90.

For the purpose of analysis, the spatial distribution of distance education throughout the country has been classified into four regions, the Southern Region, Northern Region, Central and Western Region, and Eastern Region. Whereas the Southern region accounted for only 37% of the enrollment in 1975-76, its share has been gradually increasing and it rose to the level of 70% in 1982-83 and then it further rose to 71.5% in 1987-88 but dropped to 62% in 1989-90. The Northern Region came second in order of importance and its share initially was 58% in 1975-76, but it declined to around 21.4% in 1982-83. However it has started picking up again and its share stands at 27.8% in 1989-90. The Central and Western Region, which was a late starter, had a share of about 8% in 1989-90. Except for the state of Maharashtra, the other states of Madhya Pradesh and Gujarat have a very insignificant position so far as enrollment in distance education is concerned. Out of the total enrollment of 42,329, Maharashtra alone accounts for 40,094 students, or 94.7% of the total enrollment in distance education in the state. The Eastern Region had a total enrollment of 14,062 in 1989-90, or 2.6% of the total enrollment in distance education in the country. The only two states which have established distance education programmes are Bihar and Orissa. Considering the population of the Eastern Region and the enrollment in higher education in the Eastern Region, it may be stated that distance education in the Eastern Region is totally insignificant. West Bengal, Manipur, Meghalaya, Assam, Nagaland, Tripura, and Sikkim have yet to establish any institute in distance education.

Total enrollment figures for distance education departments in colleges and universities in each state and region have been worked out for 1989-90. The data reveal that as against the total enrollment of 1,427,000 in the Southern Region, distance education accounts for 303,000, or 23% of the total. Similarly, the share of distance education in total enrollment in the Northern Region works out to be 11.2% (148,000 out of the total enrollment of 1,182,000). In the Central Region the share works out to be 3.6% of the total enrollment which is over 42,000 out of a total enrollment of 1,171,000. In the Eastern Region the share works out to be 1.6%, an enrollment of 14,000 in a total enrollment of 852,000. From this analysis it is obvious that the Southern Region had already reached the goal of the distance education fixed for 2000 AD. Taking individual states, distance education in Himachal Pradesh accounts for nearly 40% of the total enrollment, followed by Delhi 38.9%, Tamil Nadu 37.7%, and Andhra Pradesh 21.9%. All these states have achieved the goal of 20% fixed for enrollment in distance education in the higher education programmes by 2000 AD. The Central and Western Region, however, and the Eastern Region are still laggard, even though Maharashtra has made some headway. Among the laggards are Karnataka (7.6%), Kerala (4.6%), Haryana (17.6%), Jammu & Kashmir (5.9%) and Uttar Pradesh (1.8%).

TABLE 4: Spatial Distribution of Enrollment in Higher Education in India (1989-90)

	College/ University Departments	Distance Education	Total	Share of Distance Education in total
Southern Region				
1.Andhra Pradesh	293,768	82,508	376,276	21.9
2.Karnataka	280,977	22,998	303,975	7.6
3.Kerala	162,347	7,848	170,195	4.6
4.Tamil Nadu	359,432	217,107	576,539	37.7
Sub-Total	1,096,524	330,461	1,426,985	23.2
Northern Region				
5.Delhi	114,365	72,829	187,194	38.9
6.Haryana	90,034	18,960	108,994	17.4
7.Himachal Pradesh	24,579	16,260	40,839	39.8
8.Jammu & Kashmir	31,518	1,985	33,503	5.9
9.Punjab	155,994	14,136	170,125	8.3
10.Rajasthan	196,079	14,131	210,210	6.7
11.Uttar Pradesh	570,023	10,359	580,382	1.8
(ii) Sub-Total	1,182,592	148,660	1,331,252	11.2
Central & Western Region				
12.Madhya Pradesh	301,738	2,106	303,844	0.7
13.Maharashtra	574,140	40,094	614,234	6.5
14.Gujarat	253,316	129	253,445	0.1
(iii) Sub-Total	1,129,194	42,329	1,171,523	3.6
Eastern Region				
15. Bihar	299,743	5,632	305,375	1.8
16. Orissa	90,629	8,430	99,059	8.5
Others*	448,196	---	448,196	---
(iv)Sub-Total	838,568	14,062	852,630	1.6
All India Total	4,246,878	535,512	4,782,390	11.2

*Others include Assam, Manipur, Meghalaya, Nagaland, West Bengal, Tripura and Sikkim.

TABLE 5: Regionwise Enrollment of Distance Education Students in India (1989-90)

Region	Enrollment	Percentage of Total
Southern Region		
1.Andhra Pradesh	82,508	15.4
2.Karnataka	22,998	4.3
3.Kerala	7,848	1.5
4.Tamil Nadu	217,107	40.5
Sub-Total	330,461	61.7
Northern Region		
5.Delhi	72,829	13.6
6.Haryana	18,960	3.5
7.Himachal Pradesh	16,260	3.0
8.Jammu & Kashmir	1,985	0.4
9.Punjab	14,136	2.6
10.Rajasthan	14,131	2.6
11.Uttar Pradesh	10,359	2.1
Sub-Total	148,660	27.8
Central & Western Region		
12.Madhya Pradesh	2,106	0.4
13.Maharashtra	40,094	7.5
14.Gujarat	129	0.2
Sub-Total	42,329	7.9
Eastern Region		
15.Bihar	5,632	1.0
16.Orissa	8,430	1.6
Sub-Total	14,062	2.6
Grand Total	535,512	100.0

Source: Compiled from the data provided by the UGC.

All these trends in spatial distribution highlight the fact that distance education programmes have not been developed in an even manner throughout the country, as envisaged in National Education Policy. There has been unbalanced growth in distance education. This underlines the scope for enlarging the distance education programmes in the hitherto neglected areas of the country.

One of the principal objectives of distance education is to help people who may take up careers to continue their education. The expansion of distance education in India during the last three decades reveals that this objective is being fulfilled to a great extent. The gender break-down of enrollment in distance education for the year 1989-90 reveals that for the country as a whole males accounted for 61% and females accounted for 39% of the total enrollment. The proportion of females, however, in the Central and Western Region was much higher at 54%, but in the Eastern Region it was much lower at 28.2%. In the Southern Region and the Northern Region, the proportion of females was about 37% and

41% respectively. Gender break-down thus reveals that distance education programmes have benefitted a very large segment of women and further expansion will also attract more women who have been deprived of distance education in the country. The states which have shown a very promising record are Haryana, Maharashtra, Delhi and Tamil Nadu. Among the laggards are Bihar (18.4%), Uttar Pradesh (24%), Kerala (24%), Rajasthan (25%), Himachal Pradesh and Orissa (28%).

TABLE 6: Breakdown of Distance Education Students in India (1989-90) Between Males and Females

Region	Males	Females	Total	% distribution Male	Female
Southern Region					
1.Andhra Pradesh	54,862	27,646	82,508	66.5	33.5
2.Karnataka	15,728	7,270	22,998	68.4	31.6
3.Kerala	5,944	1,904	7,848	75.7	24.3
4.Tamil Nadu	131,977	85,130	217,107	60.8	39.2
Sub-Total	208,511	121,950	330,461	63.1	36.9
Northern Region					
5.Delhi	22,675	18,491	41,166	55.1	44.9
6.Haryana	7,427	11,533	18,960	39.2	60.8
7.Himachal Pradesh	11,661	4,599	16,260	71.7	28.3
8.Jammu & Kashmir	1,301	684	1,985	65.5	34.5
9.Punjab	8,819	5,317	14,136	62.4	37.6
10.Rajasthan	5,935	1,985	7,920	74.9	25.1
11.Uttar Pradesh	7,871	2,488	10,359	76.0	24.0
Sub-Total	65,689	45,097	110,786	59.3	40.7
Central & Western Region					
12.Madhya Pradesh	1,431	675	2,106	67.9	32.1
13.Maharashtra	17,937	22,157	40,094	44.7	55.3
14.Gujarat	112	17	129	86.8	13.2
Sub-Total	19,480	22,849	42,329	46.0	54.0
Eastern Region					
15.Bihar	4,596	1,036	5,632	81.6	18.4
16.Orissa	5,607	2,823	8,430	66.5	33.5
Sub-Total	10,103	3,859	14,062	71.8	28.2
Grand Total	303,883	193,755	497,638	61.1	38.9

Note: The break-up of 31,663 students admitted to Indira Gandhi National Open University and 6,211 students admitted to Kota Open University was not available. This explains variation of 37,874 students from the total of 535,512.

Source: Compiled from data provided by the UGC.

Enrollment figures of directorates with more than 10,000 enrollment reveal that ten Directorates/Open Universities accounted for eighty-three to eighty-five percent of the total enrollment during the period from 1982-83 to 1987-88. The situation did not change even in 1989-90 when thirteen Directorates/Open Universities accounted for 411,000, 84.4% of the total enrollment. This highlights the fact that on the one hand there is the Institute of Correspondence Courses, Madras with an enrollment of over 95,000 students and on the other hand, there are twelve Directorates/Institutes which have an enrollment of less than 2,000, and ten Directorates with an enrollment ranging between 2,000 to 5,000 students. Thus out of forty institutes imparting distance education in 1989-90, twenty-two can be considered as non-viable with an enrollment below 5,000. Efforts should be made to devise ways and means to make these non-viable directorates viable so that the tremendous demand for higher education can be met by them. A few attempts made by Utkal University, Bhubneshwar, and Himachal Pradesh University, Shimla, have helped them to become viable in 1988-89. Such attempts are welcome and need to be encouraged further.

TABLE 7: Total Enrollment in Ten Major Institutes of Distance Education with an Enrollment of More than 10,000.

	1982-83	1985-86	1986-87	1987-88	1988-89	1989-90
ICC, Madras	9,615	67,968	78,123	92,737	104,370	95,074
ICC, Madurai-Kamaraj	69,036	75,866	67,143	52,894	44,658	46,863
DDE, Annamalai	25,397	39,311	41,554	43,398	48,434	48,638
SCC, Delhi	9,822	21,466	22,743	27,478	33,853	41,166
DCC, Himachal Pradesh	11,701	7,181	7,181	12,928	19,257	16,260
DCC, Jaipur/ Kota O.U.	6,136	13,000	12,068	13,910*	18,327	14,131
DE, Bombay	6,603	12,283	11,807	11,234	7,592	15,935
DCC, Bombay	14,736	13,576	7,572	14,239	17,203	21,543
AP Open University	----	27,629	28,745	36,448	37,435	18,524
DCC, Andhra	14,469	29,829	29,258	28,528	30,683	35,886
Waltair						
IGNOU,Delhi					21,986	31,663
Maharshi Dayanand						14,039
Rohtak						
SNDT Womens Bombay						11,605
Total	167,515	308,109	306,194	333,794	384,298	411,327
	(84.8)	(86.8)	(82.6)	(82.9)	(84.0)	(84.4)
Total for all	197,555	355,090	370,496	402,720	454,243	487,349
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

* After 1987-88, DCC Jaipur has been merged with Kota Open University

TABLE 8: Frequency Distribution of Distance Education Institutions on the Basis of Enrollment Sizes in India

Enrollment Size	1982-83	1985-86	1986-87	1987-88	1988-89	1989-90
0 - 2000	12	16	16	12	11	12
2000 - 5000	1	6	5	8	8	10
5000 - 10,000	6	3	5	4	5	5
10,000 - 20,000	3	3	2	4	2	6
20,000 - above	2	6	6	6	8	7
Total	24	34	34	34	34	40

Although initially distance education was intended to serve those whom, because of economic and other handicaps, were unable to pursue their studies, over the years it has been found that as the regular university system was unable to accommodate the demand for higher education, correspondence courses/distance education institutions were used to accommodate the overflows of the conventional system. Consequently, in such institutions which provide undergraduate and post-graduate courses of the conventional system, the majority of the students fall in the range under 21 years of age. For the post-graduate courses, the relevant age group is 21-24 and the remaining students fall in the age group 21-30. Age distribution data of the School of Correspondence Courses, Delhi, Directorate Distance Education Bombay, Directorate of Correspondence Courses, Chandigarh support the view that an overwhelming majority of students -- about 90% in the case of SCC, Delhi, 85% in the case of DDE Bombay and 76% in the case of DCC Chandigarh, are under 21 years of age. This is because the minimum age requirement for admission to BA/BCom/BSc in these universities is 17 or 18 years. Thus, the majority of undergraduate students are under 21 years of age.

In the Institute of Correspondence Courses, Bhopal, 8,000 students out of 10,000 are studying in Bachelor of Education. The Course requirement, besides insisting on BA/BCom/BSc degrees also requires three years of experience as a school teacher at secondary level or five years experience at primary. Consequently, teachers belonging primarily to the higher age group seek admission.

TABLE 9: Percentage Distribution of Students by Age

Institution	Under 21	21 to 30	31 to 40	41 to 50	51 to 60	Over 60
1. School of Correspondence Courses & Continuing Education, Delhi	90.5	9.2	0.3	...	...	...
2. Directorate of Distance Education, Bombay University	85.0	10.0	5.0	...	...	...
3. Directorate of Correspondence Courses, Panjab University, Chandigarh	76.0	18.0	4.0	1.0	1.0	...
4. Institute of Correspondence Courses, Barktullah University, Bhopal	10.0	20.0	50.0	10.0	10.0	...
5. Department of Extension Education, Panjab Agricultural University, Ludhiana	12.0	49.0	25.0	14.0	...	...
6. YC Maharashtra Open University, Nashik	51.0	36.0	8.0	4.0	2.0	...

Source: Replies to Questionnaire

In Yashwantrao Chavan Maharashtra Open University, there is greater emphasis on professional courses. As a result a higher proportion of students are in the age group 21 to 30 (36%) and only 51% are younger than 21 years of age.

The Department of Extension Education, Punjab Agricultural University, Ludhiana, offers a course for farmers for which the eligibility condition is ability to read and write the local language. In this course, the range in various age groups of the farmer-learners is much wider. Only 12% are below 21 years of age, 49% in the age group 21 to 30, 25% are in the age group 31 to 40, and 14% are in the age group 41 to 50.

Dr. V. S. Prasad of Andhra Pradesh Open University, Hyderabad has studied the pattern of age distribution among the undergraduate students for the period 1983-84 to 1986-87. Dr. Prasad concludes that:

> Age distribution shows that the majority of the students are between 20 and 25 years of age. Their percentage was 48 in 1983-84, 49 in 1984-85 and 50 in 1985-86. It has increased to 62 in 1986-87. Around 95% of the students are between 20 and 40 years of age. Though there are a few students of 60 years and above, their percentage is negligible. The mean age of the Open University students was 28 years in 1983-84, 1984-85 and 1985-86 and 27 years in 1986-87. It shows that the University has been attracting mostly young drop-outs from the formal system. The University has not been able to attract the middle aged and old people in any significant proportion. Obviously, the concept of continuing education has not enthused large sections of the population [3].

TABLE 10: Distribution of Andhra Pradesh Open University Students by Age

Academic Year	AGE GROUP								MEAN AGE
	20-25	26-30	31-35	36-40	41-50	51-60	Above 60	Total	
1983-84	2,976	1,364	992	558	310	31	–	6,231	28
	(47.9)	(21.9)	(16.0)	(8.9)	(4.9)	(0.5)	(100.0)		
1984-85	5,544	2,516	1,629	980	544	25	6	11,244	28
	(49.3)	(22.4)	(4.5)	(8.7)	(4.8)	(0.2)	(0.05)	(100.0)	
1985-86	7,890	3,480	2,221	1,231	754	48	78	15,702	28
	(50.2)	(22.2)	(14.1)	(7.8)	(4.8)	(0.3)	(0.5)	(100.0)	
1986-87	12,000	3,208	2,077	1,149	676	55	106	19,271	27
	(62.2)	(16.6)	(10.8)	(6.0)	(3.5)	(0.3)	(0.6)	(100.0)	

Note: Figures in brackets represent percentages of total enrolment in each age group.

Source: Prasad, V.S., APOU Learner Profiles: A Case Study in Studies in Distance Education (1988), p. 127.

Data on rural-urban breakdown of students are much less firm because the classification does not follow the pattern of rural as defined in the Census. However, on the basis of the addresses of the residence of students, some directorates have classified the students as rural and urban. It is evident that Panjab Agricultural University, Ludhiana, which has started courses for farmers and peasant women, is in the real sense an institution which has been specifically working to meet the needs of the farmers by organising non-degree programmes. In other universities, there is an urban bias, reflected by the emphasis on professional courses being offered by institutions like Birla Institute of Technology and Science, Pilani (Rajasthan) or Jawaharlal Nehru Technological University, Hyderabad.

In a large number of distance education institutions, the students continue to be highly urban. For instance, in the School of Correspondence Courses, Delhi, over 93% of the students come from Delhi. Thus, the Institute primarily meets the needs of the metropolis.

Similarly, in Madras, over 50% of the students belong to the metropolitan city of Madras, and a large proportion are drawn from other urban centres. Students drawn from rural areas form a very small proportion of the total enrollment.

Although distance education was initially targeted towards employed students, over the years distance education has been used to accommodate the overflows of the conventional system. Consequently, in such courses which are being concurrently run by the distance education system and the on-campus system, the proportion of employed students has considerably declined over the years. In the School of Correspondence Courses and Continuing Education, Delhi, data reveal that between 1985-86 and 1990-91, the over-all proportion of employed students which stood at about 14% in 1985-86 declined to 4% in 1990-91 and that of the unemployed shot up from 86% in 1985-86 to 96% in 1990-91. The situation was extremely disappointing at the undergraduate level, in which the proportion of employed students fell from 13.3% in 1985-86 to barely 3.7% in 1990-91.

From the above data, two trends become evident. Firstly, there is a demand for post-graduate education because after higher secondary a large number of young persons are not able to find jobs. Most of the young complete their secondary at the age of 17, but minimum age for employment purposes is 18 years, so they must wait for one year before becoming eligible for employment. Quite a large number of parents thus prefer that their children continue to study after graduation. Distance education programmes are very convenient for this purpose. Secondly, in the employment market, a higher secondary degree is not considered sufficient qualification for most jobs, consequently it is not considered the terminal stage of education. This also compels quite a large number of young people to continue studying so that they can progress in the job market.

TABLE 11: Breakdown of Employed and Unemployed Students in the School of Correspondence Courses, Delhi

	1995-86			1990-91		
	Employed	Unemployed	Total	Employed	Unemployed	Total
1. B.A.(Pass and Hons)	1,503 (12.5)	10,486 (87.5)	11,989 (100.0)	1,201 (3.8)	30,658 (96.2)	31,859 (100.0)
2. B.Com.(Pass and Hons)	1,192 (14.5)	7,015 (85.5)	8,207 (100.0)	587 (3.4)	15,872 (96.6)	16,459 (100.0)
Total under-graduate (1+2)	2,695 (13.3)	17,501 (86.7)	20,196 (100.0)	1,788 (3.7)	46,530 (96.3)	48,318 (100.0)
3. M.A. & M.Com.	281 (22.1)	989 (77.9)	1,270 (100.0)	261 (12.9)	1,756 (87.1)	2,017 (100.0)
Total (1+2+3)	2,976 (13.9)	18,490 (86.1)	21,466 (100.0)	2,049 (4.1)	48,286 (95.9)	50,335 (100.0)

The occupational distribution of students indicates the small percentage of students who are employed. A study based on data supplied by the Directorate of Distance Education, Bombay reveals that 10% of the students are housewives, 30% are fresh students

and 60% are from clerical and administrative cadres. In such institutions where courses cater to the needs of employed students, the proportion of employed is higher. Courses like Bachelor of Education, which are targeted for untrained school teachers, and courses on business management for business executives are examples. This explains the situation in the Institute of Correspondence Courses and Continuing Education, Mysore, where 40% of the students are teachers.

Dr. V. S. Prasad has made a study of the occupational distribution of students, taken as separate groups in Andhra Pradesh Open University. His data reveal that a very high proportion of the male students are unemployed and this ratio has increased from 28% in 1983-84 to 61% in 1986-87. Although initially it was conceived that the University would mainly cater to the needs of the working population, later developments have shown that the University is largely engaged in accommodating the overflows of the conventional system. Manual and skilled workers accounted for about 15% of total students in 1983-84, but their proportion declined to 3% in 1986-87. The number of such students fell not only in relative terms but in absolute terms as well, from 793 in 1983-84 to 461 in 1986-87. Similarly, the proportion of agriculturists slumped from 8% in 1983-84 to a mere 1% in 1986-87. Students engaged in business also accounted for only 2% of the total student population. Public employees accounted for a big share of about 13% in 1986-87.

TABLE 12: Distribution of Students by Occupation : Male

Academic year	Manual workers	Skilled workers	Agri-cultuees	Busi-nessmen	Public employees	Teachers	Un-employed	Others	Total
1983-84	592 (11%)	211 (4%)	423 (8%)	264 (5%)	799 (15%)	317 (6%)	1482 (28%)	1271 (23%)	5296 (100%)
1984-85	352 (4%)	1042 (13%)	864 (10%)	505 (6%)	2590 (31%)	511 (6%)	1510 (18%)	1005 (12%)	8387 (100%)
1985-86	75 (1%)	259 (2%)	47 (0.4%)	117 (1%)	2674 (24%)	347 (3%)	6034 (53%)	1738 (15%)	11291 (100%)
1986-87	340 (2%)	121 (1%)	210 (1%)	299 (2%)	1690 (13%)	294 (2%)	8379 (61%)	2429 (18%)	13762 (100%)

Source: Prasad, V. S. APOU Learder Profile: A Case Study in Studies in Distance Education (1988), New Delhi, p. 127.

TABLE 13: Distribution of Students by Occupation: Female

Academic year	Unemployed housewives	Manual workers	Public employees	Teachers	Others	Total
1983-84	640 (68%)	4 (0.5%)	97 (11%)	102 (11%)	92 (10%)	935 (100%)
1984-85	1419 (49%)	27 (1.0%)	418 (15%)	325 (11%)	668 (24%)	2857 (100%)
1985-86	3511 (79%)	2 (0.05%)	317 (7%)	339 (8%)	242 (5%)	4411 (100%)
1986-87	4807 (87%)	12 (0.2%)	245 (4%)	277 (5%)	173 (3%)	5509 (100%)

Source: Prasad, V. S., Op. cit., p. 128

Analysis of the occupational distribution of female students in Andhra Pradesh Open University reveals that the highest proportion comes from unemployed housewives and this proportion has risen from 68% in 1983-84 to 87% in 1986-87. In other words, unemployed housewives comprise the majority of students. The other groups which take advantage of distance education are public employees and teachers. Manual workers form an insignificant proportion of the students.

Distance education institutes/open universities use English and the regional language of the state as the media of instruction. In Punjab, due to the peculiar nature of the State, three languages, English, Hindi and Panjabi are used as the media. The following table gives the media of instruction used by different universities at the undergraduate level. It may be noted that most of the Universities use English as the medium of instruction at the post-graduate level but some use the regional language as well.

TABLE 14: Media of Instruction used in Different DE Institutions

Name of the Institutions	Media of Instruction
1. Indira Gandhi National Open University, Dehli	English and Hindi
2. School of Correspondence Courses and Continuing Education, Delhi	English and Hindi
3. Directorate of Correspondence Courses Punjab University,	English, Hindi and ChandigarhPanjabi

TABLE 14: Media of Instruction used in Different DE Institutions *(continued)*

4. Institute of Correspondence Courses and Continuing Education, Mysore	English and Kannada
5. Directorate of Distance Education, Bombay	English, Hindi and Marathi
6. Institute of Correspondence Courses Bhopal	English and Hindi
7. Department of Extension Education, Punjab Agricultural University, Ludhiana	Panjabi
8. Institute of Correspondence Courses and Continuing Education, Madurai Kamraj University, Madurai	English and Tamil
9. Centre for Distance Education, Osmania University, Hyderabad	English and Telugu
10 YC Maharashtra Open University, Nashik	Marathi
11 Directorate of Distance Education, Annamalai	English and Tamil
12 Birla Institute of Technology and Science, Pilani (Rajasthan)	English
13 Institute of Correspondence Courses Madras University, Madras	English and Tamil

In a developing country like India, the most dominant medium for approaching the students is the printed texts. This is supported by personal contact programmes of varying durations. In quite a large number of distance education institutions, these contact programmes are of seven to ten days duration. At Delhi University, the duration of PCP is the longest -- twenty days at the undergraduate and thirty days at the post-graduate level in a year. For professional courses, attendance is compulsory in contact programmes. The contact programmes are optional in other arts, science and commerce programmes. Between twenty-five to forty percent of the students avail themselves of this facility.

Indira Gandhi National Open University has established 170 study centres spread all over the country with 6,500 Counsellors who evaluate students assignments and give them guidance. This is a cost-heavy programme which the Directorates/Institutes of Distance Education attached with universities can hardly afford. Moreover, the effectiveness of the study centres has yet to be evaluated on the basis of cost benefit analysis. In practical subjects like science, engineering, management courses, computers, health and nutrition, the students are expected to undergo a compulsory course of practicals. Very few

directorates/institutes have developed their own laboratories for this purpose. The Department of Distance Education, Annamalai has developed its own laboratories, but most of the other institutions hire the laboratories of regular colleges/university departments for the purpose. In some courses like BEd or MEd, where practice teaching and submission of lesson plan/models for teaching are essential, it is compulsory to attend a specified number of teaching sessions. Some institutions like the Correspondence Courses in Delhi, Punjab and Annamalai have set up study centres. These centres do not organise individualized face-to-face counselling but are centres for conducting group contact programmes and also for organising lending libraries for students. From a cost-benefit point of view, these study centres are useful. Annamalai University makes use of audio-visual material for science courses. Radio broadcast is being used by the University of Delhi, University of Punjab, University of Patiala, Madurai Kamraj University and the University of Madras. Recently, the Indira Gandhi National Open University has started making use of television for some of its courses.

The use of audio and video-cassettes was started in the 1990's by IGNOU, Kota Open University, Annamalai University and Punjab University. Since the production of video-cassettes is a more costly and complex process, many of the distance education directorates/institutions are unable to undertake it due to the financial constraints. The Open Universities, especially IGNOU and Kota Open University and to some extent Andhra Pradesh Open University, have recently begun producing video-cassettes. The use of television is also limited in view of the large variety of distance education courses introduced by different institutions. Since a separate TV channel exclusively devoted to distance education programmes is not available, the more useful strategy would be to develop video-cassettes. At present, however, this is the most under-developed aspect of distance education in India.

Another medium to contact the student is tutoring via mail, or instruction through written assignments popularly known as Student's Response Sheets (SRS). This is a very weak aspect of distance education in India. In professional courses where written assignments are compulsory and are a part of the system of evaluation, neither students nor teachers place emphasis on them. But in general courses of arts, science and commerce which cater to the bulk of the distance education students, written assignments are optional and are not integrated into the system of evaluation. Consequently, over the years the problem of handling written assignments has received very scant attention. Since the rhythm of correction and returning assignments could not be efficiently maintained, the system lost its importance and many directorates/institutes indicate that only three to five percent of the students submit written assignments. The work is delayed due to an inadequate number of Response Sheet checkers, who are poorly paid. Indira Gandhi National Open University stipulated a payment of Rs.7.50 per assignment for business management courses, but cannot sustain such a high cost for other courses. In some distance education institutions, attempts were made to make submission of 33% of the Response Sheets compulsory, but the University later had to withdraw the condition. Consequently, written assignments were made optional. The fact remains that written assignments or tutoring by mail has continued to be a very weak area.

On the question of entry qualifications for BA/BCom general level courses, most of the institutions require that a candidate should have passed the Senior Secondary Examination (twelve years schooling) and should have a minimum age of seventeen years (Delhi) or

eighteen years (Bombay). The bulk of the distance education students undertake BA/BCom courses -- a general degree. This is referred to by distance education institutions as a regular scheme. Some directorates/ institutions like ICC, Madras, Annamalai, Madurai, Mysore and even Indira Gandhi National Open University do not insist on any entry qualifications, but have prescribed the minimum age for eligibility for the Open University Scheme. This minimum age is twenty years in IGNOU but twenty-five years in other universities. These students have to pass an entrance exam. After qualifying, the students must undertake a foundation course before they pursue the degree course syllabus. For post-graduate courses, some institutions require a BA/BCom degree, but in some cases, as in Delhi and Chandigarh, minimum eligibility conditions are prescribed. The University of Madras, Madurai and Mysore have introduced an Open University scheme prescribing thirty-five years as the minimum age for the purpose. For professional courses like BEd, there is a general insistence on three years teaching experience at the secondary school level or five years experience at the primary or other levels as the entry qualifications. Even in other professional courses, because the demand is much greater than what the distance education institutes/Open Universities can serve, the distance education system is selective and prescribes entry qualification. Alternatively, as is being done by IGNOU for its diploma in management, students are selected based on their performance on an entrance test and the number of slots available. IGNOU has also prescribed an entrance test for Diploma in Computers in Office Management because of the limited number of slots. In cases where the Open Universities perform the function of extension education, the entry qualifications are kept to the bare minimum. For instance, the entry qualifications prescribed for a course for farmers being administered by the Punjab Agricultural University are a minimum age of seventeen years, ability to read or write in the local language, and practical experience in farming. Similar entry qualifications are prescribed by YC Maharashtra Open University which prescribes the age of twenty years for farmers.

The highlight of the survey of entry qualifications in distance education programmes is that wherever there are no limitations of places, entry qualifications are kept at a bare minimum so that the system can reap the benefits of economies of scale. But in cases where professional courses or courses requiring practical training have to be conducted, an entrance test is prescribed to select persons on merit.

Distance education institutions organise personal contact programmes which are in the nature of face-to-face teaching sessions. The purpose of these programmes is to provide direction to groups of students so that they can conduct their self-study more effectively. The teachers handling these sessions are advised to concentrate on areas of study which students find difficult to learn by themselves and need tutorial-support. In many directorates, subjects like Mathematics, Accounting, Statistics, and English, which are difficult to study without guidance, are given more teaching hours than other subjects.

The duration of personal contact programmes varies in different institutions. In most of the directorates, it is in the range of ten to fourteen days. Osmania University, Hyderabad provides face-to-face counselling for a short duration of two weeks. In addition, it has imposed a special charge of Rs.100 to provide weekend classes for twenty days per year. SCC, Delhi provides twenty days of personal contact programme (PCP) for undergraduate students and thirty days of PCP for post-graduate students per year. The perception of the students is that they rate the reading materials as the most dominant input and PCP is rated next in order of importance. The Open Universities following Indira Gandhi National Open

University (IGNOU) emphasize individualized tutorial guidance at their study centres. But the distance education directorates/institutes attached to conventional universities, because of the heavy cost involved in this system, do not consider it feasible. Secondly, many distance educationalists have also questioned the effectiveness of the system of individualized guidance, especially in view of the limited nature of resources available for distance education in India. In some professional courses, intensive personal contact programmes are provided as compulsory for the students. For instance, ICC&CE Mysore provides an intensive PCP for a duration of sixteen weeks for the BEd course. Similarly, Jawaharlal Nehru Technological University, Hyderabad provides a compulsory contact programme of three to four weeks, along with a laboratory course for its BTech programme.

Quite a large number of students who study through the distance education mode belong to the weaker and disadvantaged sections of the society. They deserve even greater help to meet the cost of their tuition fee and other expenditures involved in attending personal contact programmes, and visiting study centres. Unfortunately, this aspect has not received adequate attention from the authorities of either on-campus universities or open universities. DCC, Chandigarh (Punjab) provides some concessions to dependents of employees of the University. Besides this, brother and sister, Defense Personnel, Scheduled Castes and Scheduled Tribes (SC & ST) concessions are provided. But all these taken together only comprise a small percentage of the total enrollment. DDE Annamalai and ICC Madras grant fee concessions to SC and ST candidates as per government order, but IGNOU has not indicated any fee concessions for the poor and deprived categories. The School of Correspondence Courses and Continuing Education, University of Delhi has the singular distinction of granting fee concessions to 20% of male students and 25% of female students. Besides this, it operates the student-aid fund which is utilized to provide books to the poor and needy students. Some directorates/institutes of distance education do provide statutory exemption from tuition fees to students belonging to Scheduled Castes and Scheduled Tribes, while others do not provide even this facility.

In distance education institutions attached with conventional universities, the system of evaluation is the same as that of the respective parent university. Since most of the conventional universities do not undergo internal assessment as an integral part of the process of evaluation, neither do the distance education institutions attached to them. The entire evaluation is based on the annual examination conducted by the University. Written assignments, being optional, are not part of the evaluation. However, in some professional courses such as BEd or Diploma/Certificate in Library Science, written tests and practical assignments are required during the contact programmes and used for student evaluation. Similarly, in science and engineering courses, a laboratory work examination is conducted with the help of internal teachers and weighs in the evaluation of the student. For instance, Jawaharlal Nehru Technological University, Hyderabad has provided a weightage of 10% for assignments to be submitted, but it adds that the weight is kept at 10% in order to avoid undesirable tendencies. The final examination is conducted in each subject and it carries a maximum of 90% of the grade and to pass, the student must score at least 40% in the theory subject. The laboratory examination is normally conducted at the end of the contact programme and the student should secure 50% marks in the laboratory course. This process of evaluation is similar to the process of evaluation for a regular student. Indira Gandhi National Open University (IGNOU) has stipulated that 30% of the evaluation of the student will be based on assignments and 70% based on the final examination. The assignments are

either tutor-marked assignments or computer-marked assignments. Tutor marked assignments are to be submitted at the regional study centre and the computer marked assignments are to be submitted at the Headquarters. The tutors return the assignments to the students and send the assessment record to the Headquarters. Regarding computer marked assignments, students generally complain of lack of effective supervision and lack of feedback on the results. With all the short-comings attached with the system of internal evaluation, IGNOU has made an attempt to make internal evaluation based on assignments as an integral part of the evaluation process.

Since all distance education institutions are either universities established by Acts of State Governments or Central Government, their degrees are treated as equivalent to and comparable with non-distance institutions. In the case of distance education institutions attached to universities, the students follow the same syllabus and take the examination conducted by the university. Therefore, the equivalence of distance education to non-distance education students is well-established. Even transferability of students from the distance education institution to the non-distance education institution within the same university or to another recognized university is permitted. Open Universities legally enjoy the same privileges, although in their case, transferability from the OU to the on-campus system has yet to be established. Neither Open Universities nor the distance education institutions attached with conventional universities operate any placement cell for their students.

OPERATIONAL COSTS AND SOURCES OF FUNDING DISTANCE EDUCATION

In the "Study of Cost of Distance Education Institutes with Different Size Classes in India" (1991), Ruddar Datt has grouped distance education institutes attached to universities under the two broad categories of Surplus Generating Institutions and Deficit Institutions. The analysis reveals that Madras, Annamalai, SNDT Women's University, Patna and Allahabad are surplus generating institutions. Profits generated from student fees are used either to create infrastructures for distance education students and/or to augment the resources of the Universities. In some cases, surplus money goes to maintain a skeleton staff (both academic and non-academic). Some directorates like ICE, Madras with an enrollment of over 94,000 students have only twenty-eight members on the teaching faculty. Similarly, very little is spent on student support services like the organisation of personal contact programmes, library-cum-study centres, or the preparation of audio and video cassettes. Likewise, expenditure incurred on the preparation of reading materials, and the printing of lessons, is very low. Thus, these distance education institutions deliberately depress costs to generate surpluses.

TABLE 15: Sources of Funding Distance Education (Rs. at current prices)

Institute	Year	Cost per student	Fee Income per/stu.	Surplus per student	State subsidy per student
SCC&CE Delhi	1988-89	584 (100.0)	320	— (54.8)	264 (45.2)
DCC, Punjab	1988-89	1,832 (100.0)	601 (32.8)	—	1,231 (67.2)
DCC, (H.P.)	1988-89	620 (100.0)	404 (65.2)	—	216 (34.8)
ICE, Madras	1988-89	473 (100.0)	794 (167.9)	321 (67.9)	—
DCC, Patna	1988-89	368 (100.0)	447 (121.4)	79 (21.4)	
SNDT Women's Univ.Bombay	1988-89	242 (100.0)	341 (140.8)	99 (40.8)	
ICC&CE Allahabad	1988-89	495 (100.0)	435 (88.0)		60 (12.0)
DDE, Annamalai	1985-86	132 (100.0)	590 (447.0)	458 (347.0)	

Regarding the second category, there are distance education institutions that operate in a deficit, which is met either by the Centre (UGC) and/or the State Government. SCC&CE, Delhi, DCC Punjab, and DCC (H.P.) fall under this category. This is largely due to higher teacher-pupil ratios and higher non-academic staff ratios in these institutions. In Delhi, the fee income per student is as low as Rs. 320 and in DCC (H.P.) it is Rs. 404. Though fee income in DCC, Punjab is only Rs. 601 per student, with a low level of enrollment and a larger proportion of post-graduate students in total enrollment, the cost per student jumps to Rs. 1,832. Student-teacher ratio in 1988-89 DCC, Punjab was 63:1 as compared with 3,366:1 at ICE, Madras. Similarly, the student to non-teaching staff ratio was 297:1 at ICE, Madras and 35:1 at DCC, Punjab. Between these two extremes falls SCC&CE, Delhi in which the student-teacher ratio in 1988-89 was 360:1, and the student - non-teaching staff ratio was 139:1.

TABLE 16: Staff-Student Ratios in Selected Distance Education Institutions

		No. of students	Non-teaching staff	Students-non-teaching staff ratio	Teaching staff	Student teacher ratio
ICE Madras	1988-89	94,425	317	297:1	28	3366:1
DCC Punjab	1988-89	7,719	210	35:1	122	63:1
SCC Delhi	1988-89	33,853	243	139:1	94	360:1

A broad break-down of expenditures into academic costs, non-academic salary cost and other costs reveals that academic costs vary from 1.7% of total cost in the case of ICE, Madras, 4.6% in the case of SNDT (Women) Bombay, up to 38.5% in the case of DCC, Punjab. Similarly, non-academic costs vary from 14.7% at ICE, Madras to 18.6% at DDE, Annamalai, up to 37.8% in the case of DCC, Punjab. Thus, the salary component of expenditures varies widely from about 16% in the case of ICE, Madras to 33% at SNDT Bombay, to about 50% at DDE, Annamalai, increasing to 64% in the case of SCC&CE, Delhi, and peaking at 76% in the case of DCC, Punjab.

TABLE 17: Percentage Distribution of Components of Costs in Various Distance Education Institutions

		Academic cost	Non-Academic cost	Total salary	Other costs	Total
ICE Madras	1988-89	1.7	14.0	15.7	84.3	100.0
SCC&CE Delhi	1988-89	30.9	33.3	64.2	35.8	100.0
DCC, Panjab	1988-89	38.5	37.8	76.3	23.7	100.0
DDE Bombay	1987-88	21.5	35.2	56.7	43.3	100.0
SNDT Bombay	1988-89	4.6	28.5	33.1	66.9	100.0
DCC H.P.	1988-89	30.9	34.2	65.1	34.9	100.0
DDE Annamalai	1986-87	31.3	18.6	49.9	50.1	100.0

Thus, the non-salary component in different institutions varies widely from about 24% in the case of DCC, Panjab to about 84% in the case of ICE, Madras. A major conclusion is that the absence of uniform salary expenditures creates different environments in which distance education institutions in India operate. This analysis of cost distribution does not infer, however, that institutions where the salary component is low spend more money on student support services. For this purpose, expenditure per student must be examined.

TABLE 18: Cost per Student Across Distance Education Institutions (Rs. at Current Prices)

Institution		Academic cost per student	Non-Academic cost per student	Other Costs per student	Total Cost /student
ICE, Madras	1988-89	7.94	63.75	384.88	456.57
DDE, Annamalai	1986-87	53.88	32.00	86.01	171.89
SCC&CE, Delhi	1988-89	180.33	194.64	209.35	584.00
DDE, Bombay	1987-88	41.83	68.77	84.61	195.21
DCC, H.P.	1988-89	191.84	211.79	216.21	619.84
SNDT, Bombay	1988-89	11.25	68.86	260.68	340.79
DCC, Panjab	1988-89	705.60	692.56	434.44	1832.60
ICC&CE, Allahabad	1988-89	---	328.50	106.70	435.20

The table above provides information about cost per student in different institutions at current prices. Other than for DDE, Annamalai, the figures are for 1988-89, and can be considered comparable. The wide divergence in academic cost per student ranges from a low of Rs. 8 in ICE, Madras, and Rs. 11 in SNDT, Bombay, to the high expenditure of Rs. 706 in DCC, Panjab. In between are SCC&CE, Delhi with an academic cost per student of Rs. 180, and DCC (Himachal Pradesh) spending Rs. 192. Similar variations occur in non-academic cost per student, ranging from Rs. 32 for DDE, Annamalai to Rs. 64 for ICE, Madras and Rs. 69 for DDE Bombay at the low end, to Rs. 195 for Delhi, Rs. 212 for DCC (Himachal Pradesh) up to Rs. 329 for ICC&CE, Allahabad and the highest figure of Rs. 693 for DCC, Panjab. If the total cost per student is low, then the availability of funds to improve the quality of printing, to provide a longer duration of PCP, and to expand the library-cum-study centres becomes restricted. This is the situation with regard to DDE, Annamalai and DDE, Bombay. But since cost per student in Delhi, Punjab and Himachal Pradesh is quite high, other costs per student, in the form of support services, can also be maintained at a high level. Again, this reinforces the conclusion that the variable policies regarding distance education institutions followed by different universities determine the components of costs of distance education.

C. R. Pillai and C. G. Naidu of the Indira Gandhi National Open University have made a study of the cost analysis of Distance Education of IGNOU (1991) for the year 1989-90. To determine the annual unit cost per student, the total revenue expenditure of the University for the year 1989-90 was reclassified into direct costs and indirect costs. The direct costs were further sub-divided into three groups, as fixed costs, semi-variable costs, and variable costs.

Since the University conducts programmes of varying duration, it became necessary to standardise the student unit. Normally, a student undertakes four courses (or thirty-two credits) per year. The study assumed that the number of credits offered per year for an

undergraduate course was thirty-two, for a diploma course it was twenty-four, and for the certificate programme it was twelve to sixteen. Assigning a weight of one for an undergraduate full year course, the diploma course was given a weight of 0.75 and the certificate course a weight of 0.50. The weighted student number calculated for 1989-90 was 45,859, while actual student enrollment was 56,020.

TABLE 19: Conversion of Total Student Strength into an Annual 32-Credit or Equivalent Student Number in 1989-90 for IGNOU.

Name of the Programme	No. of equivalent credits offered in a year	Weighting	Actual student enrolment	Weighted student number 1989-90
(1)	(2)	(3)	(4)	5 =3x4
1 Bachelor Prep. Programme	16	0.50	13,149	6,574
2 Certificate in Food & Nutrition	12	0.50	2,122	1,061
3 Bachelors Degree programme	32	1.00	29,123	29,123
4 Bachelor of Library & Information Science	32	1.00	1,525	1,525
5 Diploma in Management	24	0.75	6,639	4,980
6 Advanced Diploma in Management	24	0.75	1,791	1,343
7 Diploma in Distance Education	24	0.75	1,229	922
8 Diploma in Creative Writing in English	24	0.75	442	330
Total	32	1.00	56,020	45,859

Source: Cost Analysis of Distance Education: IGNOU (1991)

IGNOU incurred a total recurrent cost of Rs. 83.9 million to impart instruction to 45,859 student units. Unit cost per student, therefore, worked out to be Rs. 1,830. The distribution pattern of this unit cost is Rs. 323.4 (17.7%) per student on fixed direct costs, Rs. 272.8 (14.9%) per student on semi-variable costs, Rs. 597.1 (32.6%) on variable costs, and Rs. 636.7 (34.8%) on indirect (overhead) costs. The data reveal that the total fixed (direct plus indirect) costs accounted for more than half the total recurrent costs, at 52.5%, while the rest of the expenditure was accounted for by variable and semi-variable costs.

The study has also separated the salary and non-salary component of costs. Out of the total cost of Rs. 83.9 million, the salary component accounted for Rs. 30.6 million (36.5%) and the non-salary component Rs. 53.3 million (63.5%). In absolute terms, the salary component per student was Rs. 667 and the non-salary component was Rs. 1,163.

The study has not categorised salary costs further into academic costs and non-academic salary costs, but a rough estimate on the basis of conversation with IGNOU authorities indicates that about 40% of the salary costs are for academic costs in the form of salary of academic staff in the Schools and other Divisions, including payments made to counsellors in regional services divisions. In other words, IGNOU spends about 15% of its total recurring costs on academic staff, 21.5% on non-academic salaries and 63.6% on non-salary items. The major non-salary items include printing and publication at Rs. 19.2 million, and common services and general charges at Rs. 18.3 million. These two items account for over 70% of non-salary component.

A comparison of unit costs of distance education between IGNOU and SCC & CE Delhi reveals that whereas the unit cost in IGNOU was Rs. 1,830 in 1989-90, it was Rs. 584 in SCC & CE Delhi in 1988-89. Thus, the ratio of unit cost per student between these institutions operating in the same metropolitan area is 3:1. In other words, the School of Correspondence Courses, Delhi provides instruction to three students for the same expenditure as that which is provided by IGNOU to one student. It is true that IGNOU spends about Rs. 4 million on the Communication Division which has helped to provide sixty-three video and ninety-three audio programmes during 1989-90, but this accounts for only 4.8% of the total expenditure. Even if this expenditure is deducted, it appears that IGNOU has a very heavy cost structure of distance education.

TABLE 20: Per Student Annual Recurrent Costs IGNOU
Number of Students = 45,859 (1989-90)

Sl. No.	Cost Item	Total Cost (Rs. in thousands)	% to total	Cost per student (Rs)
A.	**FIXED COSTS**			
1.	Academic Schools	9,633	11.48	210.06
2.	Distance Education Division	413	0.49	9.00
3.	Communication Division	4,025	4.80	87.77
4.	Printing & Publication	761	0.90	16.59
	Total Fixed Costs	14,032	17.67	323.42
B.	**SEMI-VARIABLE COSTS**			
1.	Admission	473	0.56	10.31
2.	Student Record Maintenance Services	1,224	1.46	26.69
3.	Student Support Service	9,767	11.64	212.98
4.	Material Distribution	367	0.44	8.00
5.	Examination Processing	677	0.81	14.76
	Total Semi-Variable Costs	12,508	14.91	272.75
C.	**VARIABLE COSTS**			
1.	Student Record Maintenance Service	684	0.82	14.92
2.	Student Support Service (Counselling)	2,100	2.50	45.79
3.	Material Distribution	1,998	2.38	43.57
4.	Examination Processing	3,434	4.08	74.66
5.	Printing & Publication	19,175	22.85	418.43
	Total Variable Costs	27,381	32.63	597.07
D.	**INDIRECT COSTS**			
1	Library & Documentation	269	1.03	18.95
2.	General Administration	5,156	6.14	112.43
3.	Common Services & General Charges	16,344	19.48	356.40
4.	Estate Management	1,896	2.26	41.34
5.	Miscellaneous & Other Expen.	4,932	5.88	107.55
	Total Indirect Costs	29,197	34.79	636.67
	Total Annual Recurrent	83,918	100.00	1829.91

Note: 1 US $ = Rs. 25.80
Source: C. R. Pillai and C. G. Naidu, Op. cit.

TABLE 21: Annual Recurrent Cost (1989-90) Salary and Non-Salary Components in IGNOU
No. of Students: 45,859 (Rs. in thousands)

Sl No.	Cost head	Salary	% of total salary	Non-salary	As % of non-salary exp.	Total	As % of total exp.
1	Schools	8,013	26.20	1,628	3.48	9,633	11.48
2	Distance Education Div.	413	1.35	...	...	413	8.49
3	Regional Services Div.	18,664	34.86	1,203	2.26	11,867	14.14
4	Communication Division	2,247	7.35	1,777	3.33	4,024	4.80
5	Computer Division	852	2.79	1,856	1.98	1,988	2.27
6	Admission Division	472	1.54	...	...	472	0.56
7	Evaluation Division	677	2.21	3,424	6.42	4,101	4.88
8	Library & Documentation Division	469	1.53	400	8.75	869	1.04
9	Printing & Publication Division	761	2.49	19,175	35.96	19,936	23.76
10	Material Distribution Division	367	1.20	...	...	367	0.44
11	General Administration	5,156	16.86	...	...	5,156	6.14
12	Estate Management	498	1.63	838	1.57	1,336	1.59
13	Common Services & general charges	...	...	18,342	34.39	18,347	21.86
14	Other charges	...	...	5,493	10.30	5,493	6.55
	Total	30,589	100.00	53,320	100.00	83,917	100.00
	Percentage	36.45	...	63.55	...	100.00	...
	Per student cost	667.02	...	1162.87	...	1829.89	...

Source: C. R. Pillai and C. G. Naidu, Op. cit.

STATUS OF DISTANCE EDUCATION INSTITUTIONS IN INDIA

India has a variety of institutions working in the sphere of distance education, with the Indira Gandhi National Open University established in 1985 as the apex institution of the country. It has been assigned a dual role. It aims

> to advance and disseminate learning and knowledge by a diversity of means, including the use of any communication technology, to provide opportunities for higher education to a larger segment of the population, (and) to encourage the Open University and distance education systems in the educational pattern of the country and to co-ordinate and determine the standards in such systems.

IGNOU on the one hand performs the same functions of dissemination of knowledge as any other university and on the other, it acts as the University Grants Commission for the open university and distance education systems in the country.

In the second tier, there are state level open universities -- Andhra Pradesh Open University, Kota Open University, Yashwantrao Chavan Maharashtra Open University and Nalanda Open University (Bihar). These universities have the power to initiate new courses, introduce flexibility in their design and operation, to prescribe their own eligibility conditions consistent with the philosophy of open education, and to innovate their own system of evaluation.

On a third level, there are Distance Education Institutions as part of universities. Some of them have been accorded the status of university departments. Examples of these are DCC Chandigarh (Punjab), DCC Patiala (Punjab) and ICC Srinagar (J & K). Then there are distance education institutions without the formal status of a college or a department. Examples are DCC Bombay, ICC Bhopal, Centre for Distance Education, Osmania University, Hyderabad, ICC&CE Mysore, ICC&CE Madurai, ICC Madras, and Directorate of Distance Education, Annamalai. These institutions are controlled by the University Syndicate/Executive Council but have a non-descript status in the University system. Some of them are self-financing, such as the Centre for Distance Education, Hyderabad. Some are surplus generating and the surplus is generally transferred to the University, and in other cases, the deficit is met by the University from its resources. SCC & CE, Delhi has the status of a University-maintained College. Birla Institute of Technology and Science is a private self-financing university.

MAJOR STRUCTURAL IMPEDIMENTS IN THE GROWTH OF DISTANCE EDUCATION

India is undergoing a period of transformation. The establishment of Indira Gandhi National Open University has given great impetus to distance education, and has fulfilled the long-felt need to have an apex institution to act as a pace setter and coordinating institution for others throughout India. This has also spurred several state governments to establish Open Universities, while others are in the process of considering doing so. All this is being done by creating separate university structures. Neither the experience of the existing directorates is being made use of, nor is an effort made at either the State level or the Central level to include the existing directorates/institutions within the Open University structure. Instead, more prestigious institutions, with bigger and better resource-bases and full freedom to develop their own syllabi and methods of instruction, are being created as Open Universities.

They are being developed as competitive institutions. In other words, a dual structure is developing, with independent open universities to impart distance education, and Correspondence Courses/Distance Education Institutes attached to
universities. The structure of these universities inhibits the freedom of the various distance education institutions operating under their control. Following are some of the identifiable impediments in their development.

Distance education institutions are treated as mere appendages of universities. Bogged down by their own problems, very little time is devoted by the Universities (Academic Councils and Executive Councils/Syndicates) to promote this technique of education. Here, discussions occur as to whether a particular course is amenable through the distance education mode, while discussion in open universities focuses on innovations to be made.

The university structure exhibits a kind of asymmetry with regard to distance education. Most educators believe that for a good and meaningful system of education, the operators of the system should play a dominant role in all levels of decision-making, from its conception to its development. In the context of distance education, operators, the teachers and the non-academic staff of the Institutes/Directorates, are hardly associated with the process of decision-making. The top University administrators make decisions without understanding the difficulties, problems, and feasible solutions pertaining to daily operations. This asymmetry destroys all initiative for devising innovations. It underlines the absence of autonomy in decision-making surrounding the operation and development of distance education.

This lack of academic autonomy creates further problems. Since distance education institutions do not have their own independent faculty empowered to frame syllabi, prescribe conditions of eligibility for different courses, and innovate a system of evaluation relevant to distance education, the distance education institutions have no option but to follow the syllabi of the conventional universities and adhere to the rigid frame of their eligibility and examination conditions. There is a common view that distance education can have credibility only if the students have experienced the same course content and examinations as conventional universities. Although this is a naive view, no effort has been made to dispel it.

Lack of financial autonomy is another serious impediment in the development of distance education. Many universities are promoting distance education in the belief that their institutions are a good source of generating surpluses which may then be used for other university infrastructures and programmes. Although the UGC's directive impressed upon the universities to use the resources generated through distance education institutions only to promote facilities for distance students, this directive is not followed. Most of the programmes for developing distance education fail due to lack of financial support. This does not imply that there should be no limit on the financial autonomy of distance education institutions, but if it is decided that cost per student in distance education shall be one-third of the unit cost in conventional universities, then a provision should be made in the State Budgets for distance students. Within this framework, distance education institutions should enjoy financial autonomy.

Administrative autonomy is also not available to many distance education institutions regarding the recruitment of staff, the purchase of equipment, and the development of a separate set of norms consistent with the system of distance education in terms of leave, hours of work, and schedule of vacation. Excessive dependence on the formal system acts

as a serious impediment to the proper functioning of distance education institutions. The real problem is that the traditional on-campus votaries of formal education still consider distance education to be a sub-standard, second-best system. This attitude acts as a major impediment to the growth of the distance education institutions in the conventional university set up.

The important question is about the future of distance education in India. It is quite clear that the demand for higher education is so high that the formal system as well as the distance education system taken together cannot meet it. Thus, it is the supply constraint which determines the rate of growth of distance education. It is therefore imperative that distance education institutions, whether in the form of more State Open Universities or Directorates attached to universities, be established.

The second relevant question is about the choice of courses to offer. There is no doubt that the demand for continuing education is a reflex of the prevailing unemployment situation in our country. To gain advantage in the job market, the unemployed try to acquire higher degrees. This partly explains the mad rush for BA, BCom, BSc, MA and MCom courses. There shall obviously be a continuing demand for conventional courses, which distance education institutions must strive to meet. Besides this, there are a good number of job-oriented and professional courses which promise better careers for the young. There are courses which upgrade already-acquired skills, thereby enabling students to earn better pay scales. The rush for BEd courses is a case in point, because these courses promise better pay scales for untrained teachers, and post-graduate courses enable them to become eligible for post-graduate trained teacher scales. Courses in Business Management are another high demand area, and wherever such courses have been offered, there has been no dearth of students. Quite recently, distance education directorates have begun to offer a very large number of certificates and diploma courses. Notable among them are diplomas in Journalism, Tourism and Hotel Management, Public Accounting, Public Administration, Industrial Relations and Personnel Management, Financial Management, Office Organisation and Procedures, International Marketing, Marketing Management, Project Management, Production Management, Labour Law and Labour Welfare, Management of Public Enterprises, Banking, Distance Education, Library and Information Science, Automobile Technology, Child Health and Family Welfare, Teaching of English, as well as Certificate courses in Hindi, Urdu, English Improvement, and Kannada.

There is still scope for undertaking science courses. Some universities such as Annamalai, Andhra Pradesh (Waltair), A.P. Open University, Madras, Madurai and Osmania have experimented with BSc and MSc courses. They are also experimenting with some engineering courses. All these experiments are welcome because they help students from the weaker segments of our society to get training in areas which have been closed to them by the formal system.

Another question pertains to the quality of distance education. Critics charge that this system is sub-standard. They even allege that reading materials prepared by many directorates are comparable to cheap notes. Moreover, no worthwhile student support services have been developed. These criticisms have an element of truth to them, but are largely biased and impressionistic statements. It is one thing to say in the National Policy Statement that the State intends to encourage distance education as an alternative and relatively less expensive system, but the UGC budget has never allocated any of its funds for distance education. The Seventh Plan did not make any specific provision for the development of distance education. Now by the end of the Eighth Plan, nearly fifteen to

seventeen percent of students will be receiving instruction through the distance education system. It seems reasonable that at least 10% of the total funds designated for higher education be specifically allocated for distance education.

There is a great need to develop infrastructures in the form of Learning Resource Centres throughout the country. Besides the reading materials, support services in the form of personal contact programmes, personal guidance to students, use of audio as well as video cassettes and library services are needed so that the distance learner can acquire deeper understanding of the subject. For this purpose, the UGC should establish one hundred Learning Resource Centres throughout the length and breadth of the country. The average cost of a composite learning resource centre would be in the range of Rs. 5 million. If in the first instance, at the thirty-five headquarters of distance education directorates, these centres are created and later they are spread to one hundred district headquarters, then by the end of the Eighth Plan, the country will have a network of Learning Resource Centres. Students belonging to any Open University or Distance Education Institution/Directorate should be permitted to become members of the Learning Resource Centres. Such a network of facilities can help to enrich distance education.

Similarly, infrastructure in the form of video-production centres shall have to be established in at least ten major Distance Education Directorates, which account for 83% of total enrollment. This requires provision of funds to acquire equipment as well as to create teams of experts to work with academics to produce video-cassettes directly related to the courses of study.

Reading materials continue to be the most important component of the distance education system. There is a need for a closer review of the reading materials produced by different directorates. Subject experts drawn from different universities should be associated with the preparation of reading materials. The payment for writing reading materials should be modelled on the pattern of Indira Gandhi National Open University. Editing of these materials written by subject experts to make them self-learning materials should be undertaken. All these efforts at qualitative improvement require experts to prepare the reading materials and expenditure on the preparation of reading materials as a kind of investment.

In conclusion, with the expanding demand for higher education, the enrollment capacity of the distance education system will have to be increased so that by the year 2000 it can absorb two million students. This requires strengthening and enlarging the network of Open Universities and Distance Education Directorates. The UGC, the Indira Gandhi National Open University, and the representatives of the directorates of distance education should pool their resources to meet the rapidly growing demand for distance education. State support has been sadly lacking. It is time that both the UGC and the Planning Commission allocate at least 10% of both plan and non-plan budgets for providing financial support to distance education institutions in the Eighth Plan, to be raised to 15% in the Ninth Plan. This will allow the distance education system, which is less expensive and relatively cost-effective, to become a better, more efficient system of learning.

BIBLIOGRAPHY

The Indira Gandhi National Open University Act 1985 (No. 50 of 1985) and the Statutes of the University, p. 6.

Prasad, V. S. APOU Learner Profile: A Case Study, Eds. Koul, B. N., Bakshish Singh, Ansari, M.M. Studies in Distance Education (1988), p. 126, Association of Indian Universities, New Delhi.

The Indira Gandhi National Open University Act 1985 (No. 50 of 1985), p. 3.

Agrawal, S. K. and Ansari M. M., Directory of Distance Education Institutions Part I. India: Association of Indian Universities and Commonwealth of Learning. 1991.

Anand, Satyapal. University Without Walls. New Dehli: Vikas Publishing House Pvt. Ltd. 1979.

Handbook of Distance Education. Association of Indian Universities. 1990.

Bahuguna R. C. "A Comparative Study of Correspondence and Formal Education". Unpublished Thesis. December 1986.

Datt, Ruddar. "Correspondence Courses -- Some Impressions." Prasar. Vol. 2, No. 1. April, 1974.

Datt, Ruddar. "Correspondence Courses in India." Prasar. Vol. 4, No. 1. April, 1976.

Datt, Ruddar. "Financing of Correspondence Courses and the Role of the State." Prasar. Vol. 3, Nos. 2 & 3. July-October, 1975.

Datt, Ruddar. "Need for Co-ordination and Control of Distance Education -- The Role of the Proposed Open University". Punjabi University, Patiala: Correspondence Education, National Seminar Report. Oct. 4-6, 1976.

Datt, Ruddar. "Financing Correspondence Education in India: Some Relevant Questions." New Dehli: Correspondence Education: Dynamic and Diversified, International Council for Correspondence Education, Eleventh World Conference. November 1978.

Datt, Ruddar. "Correspondence Courses in India: An Account of Recent Developments." A.C.U. Bulletin of Current Documentation. The Association of Commonwealth Universities, No. 43. April, 1980.

Datt, Ruddar. "Planning and Management of Distance Education in India." Indian Journal of Distance Education. Vol. II.

Datt, Ruddar. "Problems of Distance Education in Developing Countries, Learning at a Distance - A World Perspective." International Council for Distance Education. 1982.

Datt, Ruddar. "Planning and Development of Distance Education." Journal of Higher Education. Vol. 9, No. 3, New Dehli: University Grants Commission. 1984.

Datt, Ruddar. "Development of Distance Education in India -- The Principal Impediments." Pakistan Journal of Distance Education. Vol. IV, No. 1. Islamabad, Pakistan: Allama Iqbal Open University. 1986.

Datt, Ruddar. "Distance Education in India: Present and Future." Punjabi University, Patiala: Distance Education in India -- Problems, Priorities and Policy Measures, Inaugural Address. March 4-5, 1989.

Datt, Ruddar. "Distance Education - Policies and Strategies." Distance Education: Development and Access. Caracas: International Council for Distance Education. 1990.

Datt, Ruddar. "Study of Cost of Distance Education Institutes with Different Size Classes in India." University of Dehli: NIEPA Research Project, School of Correspondence Courses and Continuing Education. 1991.

Datt, Ruddar. "Planning and Management of Distance Education in India." Distance Education: Some Readings. Inayat Khan, ed. New Dehli: Amar Prakashah. 1991.

Datt, Ruddar. "Growth of Distance Education in India." Indian Journal of Distance Education. Vol. IV. Punjab University: Directorate of Correspondence Courses.

"Distance Education - An Overview." Papers presented by Resource Persons Open School. National Pilot Training Workshop on Distance Education. September 1985.

"Distance Education -- A Reappraisal." (1984), K. P. Pandey, O. P. Gautam and S. K. Gupta, eds. Proceedings of Fourth National Seminar, National Council of Correspondence Education, March 1984.

"The Indira Gandhi National Open University Act." 1985 (No. 50) Statutes of the University, Indira Gandhi National Open University, New Delhi. 1985.

Koul, B.N., Bakshish Singh and Ansari, M.M. "Studies in Distance Education." New Dehli: Association of Indian Universities. 1988.

NIEPA. "Planning and Management of Distance Education". Report of the First National Workshop. October 1987.

Parmaji, S. Distance Education. New Dehli: Sterling Publishers Private Limited. 1984.

Pillai, C. R. and Naidu, C. G. "Cost Analysis of Distance Education". New Dehli: Indira Gandhi National Open University. 1991.

Ram Reddy, G. "Open Education System in India, Its place and Potential". Andhra Pradesh University Hyderabad. 1984.

University Grants Commission. "Correspondence Education in Indian Universities - A Review". Report of the Project Team headed by Vijaya Mulay. 1986.

University Grants Commission. "Distance Education - Coordination and Maintenance of Standards". Conference of Vice-Chancellors, Ahmedabad. October 1989.